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1	US 20040062323 A1	20040401	7	Source-synchronous receiver having a predetermined data receive time	375/316	375/354; 375/372
2	US 20030031284 A1	20030213	43	Probability estimating apparatus and method for peak-to-peak clock skews	375/371	
3	US 20020176525 A1	20021128	37	Apparatus for and method of measuring clock skew	375/371	
4	US 20020110213 A1	20020815	10	Method and apparatus for providing data for sample rate conversion	375/372	
5	US 20010038674 A1	20011108	110	MEANS AND METHOD FOR A SYNCHRONOUS NETWORK COMMUNICATIONS SYSTEM	375/355	370/503; 375/371
6	US 6748039 B1	20040608	12	System and method for synchronizing a skip pattern and initializing a clock forwarding interface in a multiple-clock system	375/354	375/372; 713/400
7	US 6744837 B1	20040601	15	Clock switching circuit	375/372	711/109
8	US 6732205 B2	20040504	29	Serial/parallel conversion circuit, data transfer control device, and electronic equipment	710/71	341/100; 375/340; 375/371; 375/372; 710/65
9	US 6711226 B1	20040323	11	Linearized digital phase-locked loop	375/371	327/152; 327/24; 370/516; 375/375
10	US 6526109 B1	20030225	30	Method and apparatus for hybrid smart center loop for clock data recovery	375/371	327/158; 375/374; 375/376
11	US 6463109 B1	20021008	32	Multiple channel adaptive data recovery system	375/355	370/503; 375/371; 714/707
12	US 6263035 B1	20010717	14	System and method for adjusting a phase angle of a recovered data clock signal from a received data signal	375/371	375/360; 375/361; 375/373; 375/376
13	US 6236694 B1	20010522	17	Bus and interface system for consumer digital equipment	375/363	348/423.1; 375/371
14	US 6154509 A	20001128	12	Data phase recovery system	375/371	370/517; 713/400; 713/401

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1	Taylor, Gary L. et al.	US 2004006232 3
2	Ishida, Masahiro et al.	US 2003003128 4
3	Yamaguchi, Takahiro et al.	US 2002017652 5
4	May, Michael R. et al.	US 2002011021 3
5	TRANS, FRANCOIS	US 2001003867 4
6	Bates, Michael E.	US 6748039
7	Satou, Hiroshi et al.	US 6744837
8	Kamihara, Yoshiyuki et al.	US 6732205
9	Williams, Bertrand J. et al.	US 6711226
10	Chang, Charles et al.	US 6526109
11	McCormack, Gary D. et al.	US 6463109
12	Maresca, Patrick A.	US 6263035
13	Blatter, Harold et al.	US 6236694
14	Bishop, Wendell	US 6154509

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15	US 6031886 A	20000229	17	Digital phase alignment apparatus in consideration of metastability	375/375	370/516; 375/371
16	US 5966387 A	19991012	22	Apparatus and method for correcting jitter in data packets	370/516	375/371
17	US 5887040 A	19990323	17	High speed digital data retiming apparatus	375/372	327/152
18	US 5870441 A	19990209	28	Distributed clocking system	375/354	327/144; 370/518; 375/371
19	US 5818890 A	19981006	8	Method for synchronizing signals and structures therefor	375/371	327/271; 327/277; 370/518; 370/519; 375/373
20	US 5799049 A	19980825	7	Phase-independent clock circuit and method	375/362	375/371
21	US 5740210 A	19980414	33	Data discriminating circuit and a parallel data receiver using the same	375/362	327/5; 327/8; 375/364; 375/371
22	US 5712883 A	19980127	17	Clock signal distribution system	375/371	327/153; 375/356; 375/373; 714/700
23	US 5696800 A	19971209	29	Dual tracking differential manchester decoder and clock recovery circuit	375/361	341/70; 370/516; 375/360; 375/371
24	US 5652773 A	19970729	18	Digital phase-locked loop for data separation	375/371	375/373; 375/376
25	US 5608357 A	19970304	19	High speed phase aligner with jitter removal	331/57	331/173; 331/185; 331/2; 375/372; 375/376
26	US 5602880 A	19970211		Method and system for minimizing resynchronization delays in digital microwave radio systems	375/371	370/505; 375/354; 375/372
27	US 5587709 A	19961224		High speed serial link for fully duplexed data communication	341/100	375/371
28	US 5517521 A	19960514		Method and apparatus for synchronization between real-time sampled audio applications operating full-duplex over a half-duplex radio link	375/219	370/276; 370/507; 370/516; 375/357; 375/372

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15	Nah, Ji Ha et al.	US 6031886
16	Cloutier, Leo	US 5966387
17	Jung, Hee-Young et al.	US 5887040
18	Cotton, John M. et al.	US 5870441
19	Ford, David K. et al.	US 5818890
20	McFarland, Duncan A. et al.	US 5799049
21	Rokugawa, Hiroyuki	US 5740210
22	Miller, Charles A. et al.	US 5712883
23	Berger, Lior	US 5696800
24	Lu, Chau-Her	US 5652773
25	Ta, Paul et al.	US 5608357
26	Webster, Jerry K. et al.	
27	Jeong, Deog-Kyoon	
28	Strawn, David F.	

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29	US 5515404 A	19960507		Data communication systems	375/371	327/156; 370/516; 375/376
30	US 5475690 A	19951212		Delay compensated signal propagation	370/519	327/153; 327/271; 375/371; 713/401
31	US 5459753 A	19951017		Method and apparatus for pattern independent phase detection and timing recovery	375/362	375/371
32	US 5436943 A	19950725		Digital audio signal processing circuit	375/371	331/2; 375/373; 381/77
33	US 5432823 A	19950711		Method and circuitry for minimizing clock-data skew in a bus system	375/356	370/507; 370/517; 375/371
34	US 5412698 A	19950502		Adaptive data separator	375/373	327/141; 327/98; 375/371
35	US 5400370 A	19950321		All digital high speed algorithmic data recovery method and apparatus using locally generated compensated broad band time rulers and data edge position averaging	375/371	375/359; 375/364; 375/376
36	US 5329556 A	19940712		Reproduction equipment for digital audio	375/354	375/371
37	US 5278902 A	19940111		Method and apparatus for transition direction coding	380/42	375/371; 713/400; 714/700
38	US 5278873 A	19940111		Broadband digital phase aligner	375/371	327/141; 327/292
39	US 4977582 A	19901211		Synchronization of non-continuous digital bit streams	375/371	370/517
40	US 4945548 A	19900731		Method and apparatus for detecting impending overflow and/or underrun of elasticity buffer	375/214	370/506; 375/372
41	US 4928290 A	19900522	10	Circuit for stable synchronization of asynchronous data	375/371	327/141; 341/61
42	US 4873703 A	19891010		Synchronizing system	375/371	375/354; 375/356; 713/400; 713/501
43	US 4860285 A	19890822		Master/slave synchronizer	370/507	375/371
44	US 4756011 A	19880705		Digital phase aligner	375/371	375/332

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29	Pearce, David A. J.	
30	Burns, Douglas J. et al.	
31	Co, Ramon S. et al.	
32	Borgen, Gary	
33	Gasbarro, James A. et al.	
34	Van Brunt, Roger et al.	
35	Guo, Bin	
36	Meitner, Edmund et al.	
37	Nugent, Steven F.	
38	Lowrey, Scott W. et al.	
39	Nichols, Robert K. et al.	
40	Iannarone, John R. et al.	
41	Vo, Tri T.	US 4928290
42	Crandall, Douglas et al.	
43	Miller, Merle L. et al.	
44	Cordell, Robert R.	

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45	US 4672639 A	19870609		Sampling clock pulse generator	375/371	327/231; 327/273
46	US 4661966 A	19870428		Method and apparatus for adjusting transmission rates in data channels for use in switching systems	375/363	370/477; 370/505; 375/372
47	US 4580279 A	19860401		Elastic store slip control and maintenance circuit	375/372	370/505; 714/702; 714/805
48	US 4224481 A	19800923		Compression and expansion circuitry for a recording and playback system	369/47. 33	365/215; 365/221; 369/97; 375/371; 386/109; 386/124
49	US 4208724 A	19800617		System and method for clocking data between a remote unit and a local unit	713/503	327/154; 375/371
50	US 4107459 A	19780815		Data processor analyzer and display system	375/368	360/39; 360/5; 375/371; D18/52
51	US 3825899 A	19740723		EXPANSION/COMPRESSION AND ELASTIC BUFFER COMBINATION	370/324	370/506; 370/517; 375/356; 375/371
52	JP 60180240 A	19850914		PHASE CORRECTING CIRCUIT OF DIGITAL DATA SIGNAL		375/371

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45	Tanabe, Toshiyuki et al.	
46	Schreiner, Stanley M.	
47	Kahn, David B.	
48	Russell, James T.	
49	Rattlingourd, Glen D.	
50	Stamper, Jerry Lee	
51	Haeberle, Heinz H. et al.	
52	TADAMI, MITSUSHIGE	



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1	US 6744472 B1	20040601	73	Graphics display system with video synchronization feature	348/441	341/61; 348/513; 348/536; 348/537; 348/539; 348/639
2	US 6058141 A	20000502	17	Varied frame rate video	375/240	341/141; 341/155; 341/50; 341/61
3	US 5986589 A	19991116	21	Multi-stream audio sampling rate conversion circuit and method	341/61	704/504
4	US 5963153 A	19991005	21	Multi-stream audio sampling rate conversion system and method using variable converter rate control data	341/61	370/428; 704/504
5	US 5742773 A	19980421	22	Method and system for audio compression negotiation for multiple channels	709/228	341/61; 358/1.9; 370/263; 370/435; 370/441; 370/477; 370/479; 704/500; 709/247
6	US 5717715 A	19980210	72	Signal processing apparatus and method	375/220	341/61
7	US 5457456 A	19951010	13	Data converter with programmable decimation or interpolation factor	341/61	341/143
8	US 5038365 A	19910806	11	Modem having a software-adapted modulation rate	375/222	341/61; 370/465; 375/240

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1	MacInnis, Alexander G. et al.	US 6744472
2	Barger, John et al.	US 6058141
3	Rosefield, Peter L. et al.	US 5986589
4	Rosefield, Peter L. et al.	US 5963153
5	Blomfield-Brown, Christopher et al.	US 5742773
6	Claydon, Anthony Peter J. et al.	US 5717715
7	Norsworthy, Steven R.	US 5457456
8	Belloc, Jacques et al.	US 5038365

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1	US 6411245 B1	20020625	10	Signal processing circuit	341/155	341/50; 341/61
2	US 5786778 A	19980728	20	Variable sample-rate DAC/ADC/converter system	341/61	708/313
3	US 5513209 A	19960430	24	Resampling synchronizer of digitally sampled signals	375/354	327/14; 327/45; 341/102; 341/61
4	US 4928290 A	19900522	10	Circuit for stable synchronization of asynchronous data	375/371	327/141; 341/61
5	US 4870661 A	19890926	17	Sample rate conversion system having interpolation function	375/240	341/61; 348/441; 348/475

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1	Oka, Hirohiko	US 6411245
2	Adams, Robert W. et al.	US 5786778
3	Holm, Gunnar	US 5513209
4	Vo, Tri T.	US 4928290
5	Yamada, Masahiro et al.	US 4870661

L Number	Hits	Search Text	DB	Time stamp
1	8	(((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3)) and (write or record)) and read and modem	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 10:16
2	3323561	formatted digital data	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 10:56
3	122	((formatted digital data) and (((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 13:14
7	5716487	sample rate conver\$5 value	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 13:13
8	122	((formatted digital data) and (((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3))) and (sample rate conver\$5 value)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 14:54
9	1888928	(system clock) and (data clock)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 15:02
10	122	((formatted digital data) and (((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3))) and (sample rate conver\$5 value)) and ((system clock) and (data clock))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 14:56
11	2186	(system adj clock) and (data adj clock)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 15:02
13	5	((system adj clock) and (data adj clock)) and 341/61.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 15:03
-	315	375/372.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 07:59
-	298	375/375.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:00
-	1751	375/371.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:00
-	2913	375/354.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:00
-	351	341/61.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:22
-	3328615	data request interrupt\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:24

-	1921699	(data request interrupt\$3) and (system clock)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:28
-	5092	1, 2, 3, 375/354.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:28
-	3388	((data request interrupt\$3) and (system clock)) and (1, 2, 3, 375/354.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:28
-	14	341/61.ccls. and (1, 2, 3, 375/354.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 13:12
-	290	341/61.ccls. and ((data request interrupt\$3) and (system clock))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:52
-	126	(341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:53
-	124	((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:55
-	122	((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/20 08:55
-	7	(((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3)) and (1, 2, 3, 375/354.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 10:55
-	122	(((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 10:56
-	55	(((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3)) and (write or record)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 08:51
-	48	(((((341/61.ccls. and ((data request interrupt\$3) and (system clock))) and buffer) and (rate conver\$5)) and (first word) and (second word)) and (data process\$3)) and (write or record)) and read	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/21 08:25